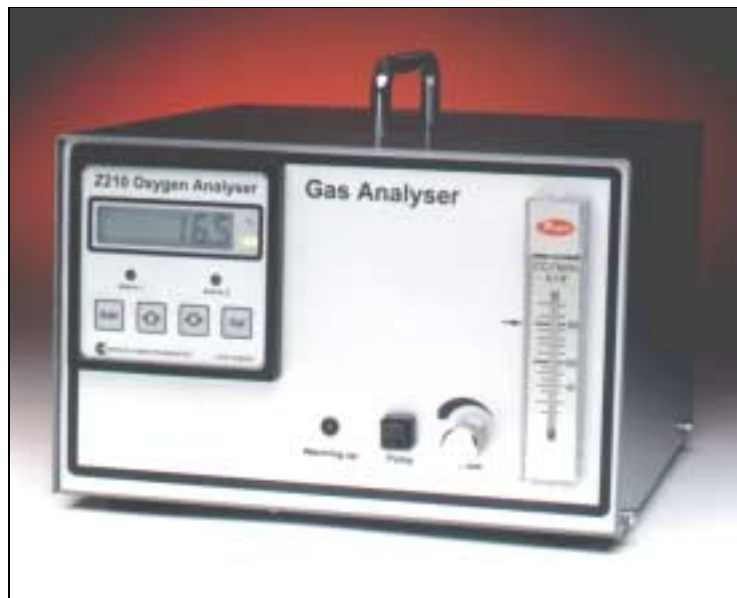




# Z210 oxygen analyser

## Features

- ◆ Measures from 100% to less than 1ppm
- ◆ Fast response time of less than 5s for 90% change
- ◆ Fully autoranging
- ◆ Fully programmable alarms and analogue output



The **Z210 zirconia oxygen ana-lyser** measures a wide range of oxygen concentrations (from percentage levels to a few ppm) in clean gases. It is a single-unit system based on a zirconia oxygen sensor which provides a wide dynamic range with minimal interference from other gases. The unique cell and heater design gives very fast warm-up times, rapid response, and long sensor life. A wide choice of range and sampling options is provided to produce virtually 'custom-built' systems.

A **large multi-digit autoranging LCD** is used to display measured concentrations and also user-adjustable parameters during alarm configuration procedures.

**Two alarm channels**, user-configurable for high, low or off states and hysteresis, each provide one set of volt-free changeover contacts. They can be set to any concentration within the span of the instrument. A choice of two analogue outputs is provided, 0 to 5V or 4 to 20mA, each with several pre-set ranges.

**The standard sampling system** is a simple needle valve and flowmeter. Options include: sample pump, fast flow loop system, syringe injection port. Hitech also supply a range of sample conditioning accessories to cater for most sample sources.

## Applications

- ◆ Air separation plants
- ◆ Nitrogen-purged soldering systems
- ◆ Cylinder gas quality
- ◆ Pharmaceutical and food packaging and storing
- ◆ Purge gas monitoring
- ◆ Glove boxes
- ◆ Workplace air monitoring
- ◆ Medical monitoring

**SPECIFICATION****Display**

Multi-digit LCD, character height 12.7mm

**Range**

0.1ppm to 100% oxygen, autoranging

**Display resolution**

From 10% to 100%:	0.1%
From 0.5% to 9.99%:	0.01%
From 500ppm to 4999ppm:	10ppm
From 50ppm to 499ppm:	1ppm
From 0ppm to 49.9ppm:	0.1ppm

**Accuracy**

100% to 100ppm:	±2% of reading or better
99ppm to 10ppm:	±1ppm
0.1ppm to 9.9ppm:	±0.2ppm

**Stability**

Better than 2% of reading or 0.5ppm/month, whichever is greater

**Sample flow**

Between 100 and 300ml/min for optimum operation

**Speed of response in clean inert atmospheres**

% levels: less than 0.5s for 90% change  
 Levels from 1000 to 10ppm: less than 5s for 90% change  
 Levels less than 100ppm: less than 30s for 90% change  
 When the cell is stabilised/conditioned at low levels, response to changes at that level is of the order of 3 to 4s

**Sample inlet pressure (no pump fitted)**

10mbar minimum  
 8bar maximum

**Sample temperature (at analyser)**

100°C maximum

**Sampling system materials**

Materials include: nickel, brass, aluminium, stainless steel, platinum, zirconia, alumina, PTFE and nitrile-rubber

**Sample connection (located on back panel of unit)**

Captive seal compression fitting suitable for 0.25inch (6mm) outside diameter tube

**Analogue outputs**

Standard: 0 to 5V  
 Optional: 4 to 20mA

Each user-programmable For the Following spans:  
 0 to 100%, 0 to 25%, 0 to 5%,  
 0 to 5000ppm, 0 to 500ppm, 0 to 50ppm, 0 to 5ppm

**Alarm outputs**

2 alarms: each user-configurable to OFF, HIGH or LOW status  
 Hysteresis programmable from 0 to 10% of set-point  
 Volt-free changeover relay contacts rated 48V ac or dc,  
 0.5A, normally-energised

**Ambient temperature**

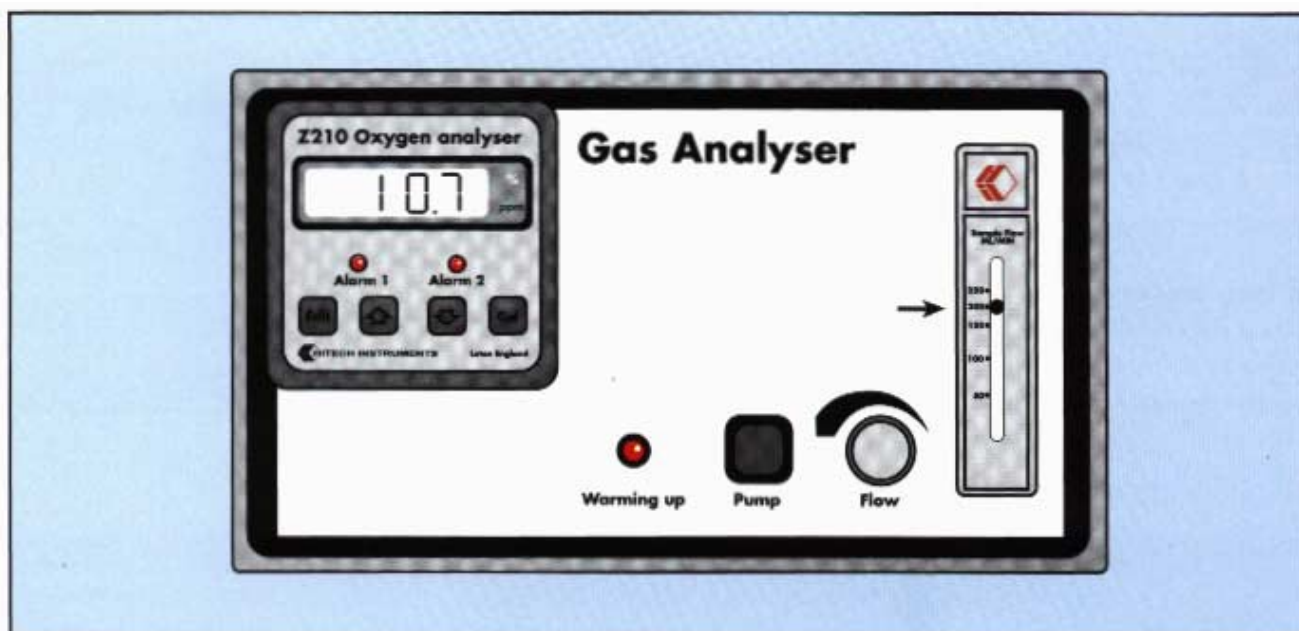
45°C maximum

**Power supply**

Please specify option required From the following:  
 110V, 50/60Hz at 80VA max.  
 220V, 50/60Hz at 80VA max.  
 240V, 50/60Hz at 80VA max.

**Mounting**

Transportable, Free-standing case: 255mm wide x 170mm high  
 x 260mm deep



*In keeping with a policy of continuous development, Hitech Instruments Limited reserves the right to change any part of this specification without notice*

20 Titan court, Laporte Way, Luton, Bedfordshire, England LU4 8EF  
 Telephone: +44 (0)1582 456900 Fax: +44 (0)1582 400901  
 e-mail: enq@hitech-inst.co.uk  
 website: <http://www.hitech-inst.co.uk>

A member of The MTL Instruments Group plc



**HITECH INSTRUMENTS  
 LIMITED**